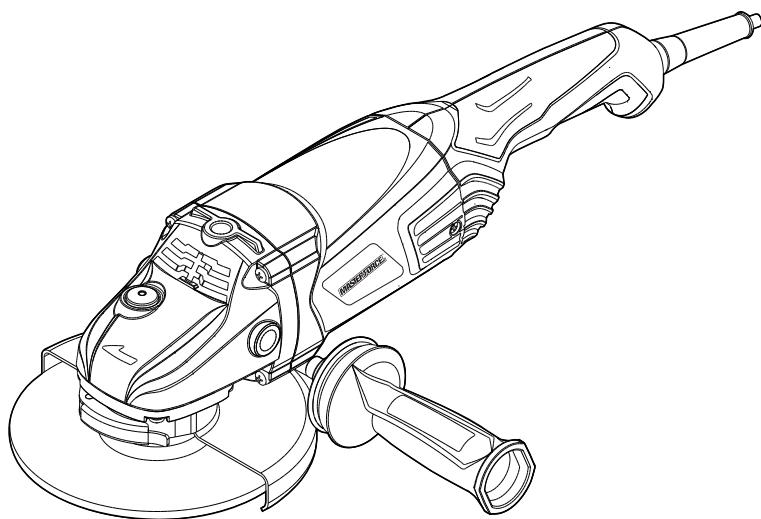




15A Angle Grinder



241-0782

OPERATOR'S MANUAL




⚠ CAUTION: To Reduce The Risk Of Injury, User Must Read And Understand Operator's Manual. Save These Instructions For Future Reference.

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SAFETY SYMBOLS


Some of these following symbols may be used on this tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

Symbol	Name	Designation / Explanation
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
~	Alternating current	Type of current
—	Direct current	Type of characteristic of current
n_0	No-load speed	Rotational speed at no load
n	Rated speed	Maximum rotational speed with any recommended accessory installed.
	Class II construction	Double insulated construction
.../min	Per minute	Revolutions, strokes, surface speed orbits, etc., per minute
	Wear safety goggles	<div>  WARNING: The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and a full-face shield when needed. We recommend a Wide Vision Safety Mask for use over eye-glasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1. </div>

 WARNING: To ensure safety and reliability, all repairs should be performed by a qualified service technician.

SAFETY INSTRUCTIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

 **WARNING:** Be sure to read and understand all safety instructions in this manual, including all safety alert symbols such as “DANGER,” “WARNING,” and “CAUTION” before using **this tool**. Failure to following all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SYMBOL MEANING



SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, OR CAUTION.
May be used in conjunction with other symbols or pictographs.



DANGER: Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.



WARNING: Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.



CAUTION: Indicates a potentially hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE: (Without Safety Alert Symbol) Indicates a situation that may result in property damage.

SAVE THESE INSTRUCTIONS!

SAFETY INSTRUCTIONS


KNOW THE TOOL


 **WARNING:** To reduce the risk of injury, user must read instruction manual.

IMPORTANT

This tool should only be serviced by a qualified service technician. For more information, call the toll-free helpline: 1-866-917-4374.

GENERAL SAFETY RULES FOR ALL POWER TOOLS

 **WARNING:** To reduce the risk of injury, the user must read the Operator's Manual.

 **WARNING:** Read all safety warnings and instructions! Failure to follow the warnings and instructions may result in electric shock, fire and / or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your AC-powered (corded) power tool or battery-powered (cordless) power tool.

WORK AREA SAFETY

1. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

ELECTRICAL SAFETY

1. The plug on the power tool must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
2. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
4. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep the cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
5. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
6. If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock.

SAFETY INSTRUCTIONS

PERSONAL SAFETY

1. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use the tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.**
2. **Use personal protective equipment. Always wear eye protection. Protective equipment such as a dust mask, non-skid safety shoes, hard hat, or hearing protection, used for appropriate conditions, will reduce personal injuries.**
3. **Prevent unintentional starting. Ensure that the switch is in the off-position before connecting to power source and / or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.**
4. **Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.**
5. **Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.**
6. **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.**
7. **If devices are provided for the connection of dust extraction and collection facilities, ensure that these are connected and properly used. Use of these devices can reduce dust-related hazards.**

USE AND CARE OF THE POWER TOOLS

1. **Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and more safely at the rate for which it was designed.**
2. **Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.**
3. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.**
4. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.**
5. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.**
6. **Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.**
7. **Use the power tool, accessories, tool bits etc., in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.**

SAFETY INSTRUCTIONS

SERVICE

1. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

SPECIFIC SAFETY RULES FOR ANGLE GRINDERS

1. This power tool is intended to function as a grinder. Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

2. Operations such as sanding, wire brushing, polishing or cutting-off are not recommended to be performed with this power tool. Operations for which the power tool was not designed may create a hazard and cause personal injury.

3. Do not use accessories that are not specifically designed and recommended by the tool manufacturer for this tool. Just because the accessory can be attached to your power tool is no assurance of safe operation.

4. The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool. Accessories running faster than their rated speed can break and fly apart.

5. The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool. Incorrectly sized accessories cannot be adequately guarded or controlled.

6. The arbor size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool. Accessories with arbor holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.

7. Do not use a damaged accessory. Before each use inspect the accessory, such as abrasive wheels, for chips and cracks, backing pad for cracks, tear or excess wear. If the power tool or accessory is dropped, inspect for damage or install an undamaged accessory.

8. Installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.

9. Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments. The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.

10. Keep bystanders a safe distance away from the work area. Anyone entering the work area must wear personal protective equipment. Fragments of the workpiece or of a broken accessory may fly away and cause injury beyond the immediate area of operation.

11. Hold the power tool by the insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. A cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.

12. Position the cord clear of the spinning accessory. If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.

SAFETY INSTRUCTIONS

13. **Never lay the power tool down until the accessory has come to a complete stop.** The spinning accessory may grab the surface and pull the power tool out of your control.

14. **Do not run the power tool while carrying it at your side.** Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.

15. **Regularly clean the power tool's air vents.** The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.

16. **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.

17. **Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.

FURTHER SAFETY INSTRUCTIONS FOR ALL OPERATIONS

KICKBACK AND RELATED WARNINGS

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory, which, in turn, causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material, causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching.

Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

1. **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces.** Always use the auxiliary handle for maximum control over kickback or torque reaction during start-up. The operator can control torque reactions or kickback forces, if proper precautions are taken.

2. **Never place your hand near the rotating accessory.** The accessory may kickback over your hand.

3. **Do not position your body in the area where power tool will move if kickback occurs.** Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.

4. **Use special care when working corners, sharp edges, etc.** Avoid bouncing and snagging the accessory. Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.

5. **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

SAFETY INSTRUCTIONS FOR GRINDING OPERATIONS

1. **Use only wheel types that are recommended for your power tool and the specific guard designed for the selected wheel.** Wheels for which the power tool was not designed cannot be adequately guarded and are unsafe.

2. **The guard must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator.** The guard helps to protect operator from broken wheel fragments and accidental contact with wheel.

SAFETY INSTRUCTIONS

3. Wheels must be used only for recommended applications. Abrasive cut-off wheels are intended for peripheral grinding; side forces applied to these wheels may cause them to shatter.

4. Always use undamaged wheel flanges that are of correct size and shape for your selected wheel. Proper wheel flanges support the wheel, thus reducing the possibility of wheel breakage. Flanges for cut-off wheels may be different from grinding wheel flanges.

5. Do not use worn down wheels from larger power tools. A wheel intended for a larger power tool is not suitable for the higher speed of a smaller tool and may burst.

ADDITIONAL INSTRUCTIONS FOR SAFE OPERATION

WARNING: To reduce the risk of injury always wear eye protection. Everyday eyeglasses have only impact-resistant lenses; they are not safety glasses. All users and bystanders must wear eye protection that conforms to ANSI Z87.1.

WARNING: To reduce the risk of injury, use only accessories rated at least equal to the maximum speed marked on the tool. Wheels and other accessories running over the rated speed can fly apart and cause injury. Grinding wheels or any other accessory must have a maximum safe operating speed greater than the “no load RPM” marked on the tool’s nameplate.

WARNING: Always use the proper guard when grinding. A guard protects operator from broken wheel fragments. When using grinding wheel attachments, the guard must always be attached to the tool and positioned for maximum safety, so the least amount of wheel is exposed from the side from which the tool is being operated.

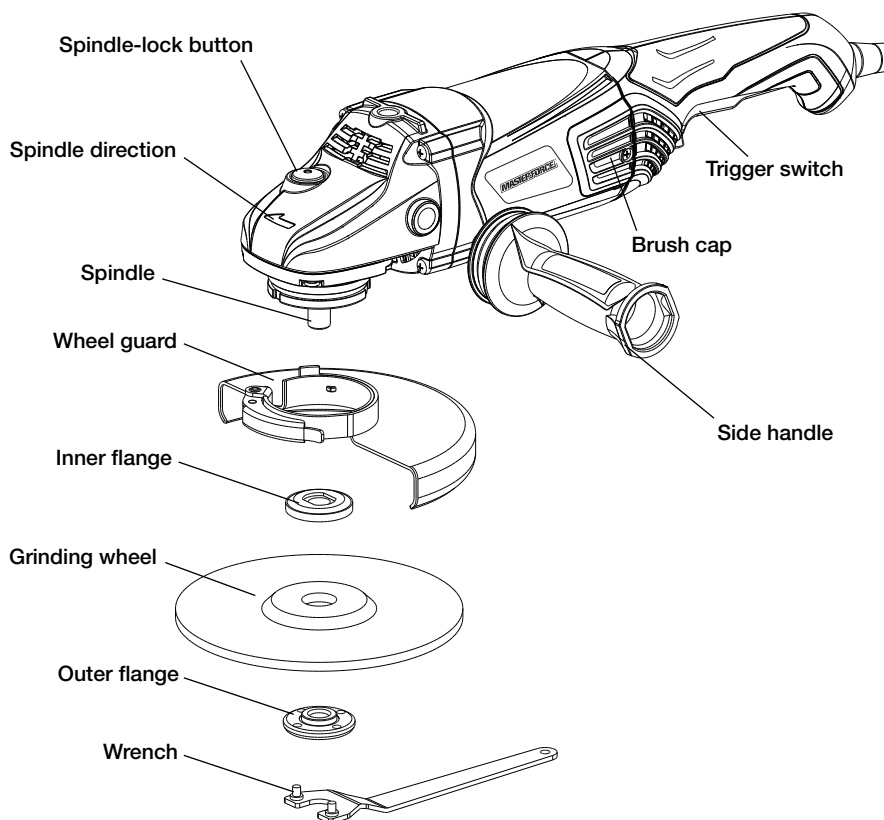
1. When operating a power tool outside, use an outdoor extension cord marked “W-A” or “W”. These cords are rated for outdoor use and reduce the risk of electric shock. The following table shows the correct size to use, depending on cord length and nameplate amperage rating of the tool. When in doubt, use the next heavier gauge. Always use UL and CSA listed extension cords.

Recommended sizes of extension cords:

Tool's Ampere Rating	Volts	Total length of cord in feet Cord size in A. W. G. (minimum)			
		25'	50'	100'	150'
0-6	120 V~	18	16	16	14
6-10		18	16	14	12
10-12		16	16	14	12
12-16		14	12	Not Recommended	

OVERVIEW

FIG. 1



SPECIFICATIONS

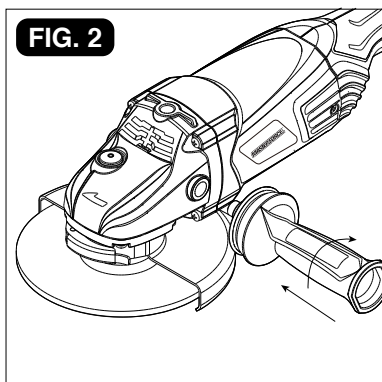
Rating	120 V 60Hz
Motor	15 A
Rated Speed	8,000 RPM
Wheel diameter	7" (180 mm)
Arbor size	5/8"
Cord length	8'
Weight	10 lb

ASSEMBLY

POWER SUPPLY

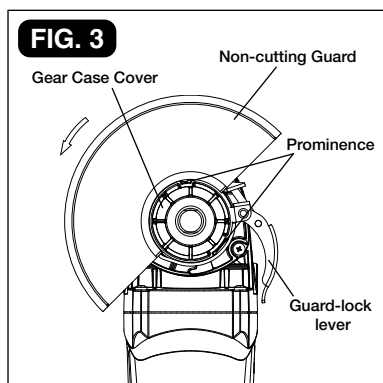
The power tool supply must match the nameplate rating.

INSTALLING THE SIDE HANDLE (FIG. 2)



1. Unplug the angle grinder.
2. The side handle may be installed on the right side or the left side of the tool. Thread the side handle into the desired operating position.
3. Securely tighten the side handle by turning it clockwise.

ATTACHING AND ADJUSTING THE GUARD (FIG. 3)



ATTACHING THE GUARD

1. Unplug the angle grinder.
2. Make sure that the prominence on the guard coincides with the groove in the gear case cover.
3. Rotate the guard counter-clockwise to the desired position
4. Pivot the guard-lock lever to secure the guard in place.

ADJUSTING THE GUARD

1. Unplug the angle grinder.
2. Pivot the guard-lock lever to loosen the guard from the gear case cover.
3. Rotate the guard counter clockwise to the correct position.
4. Pivot the guard-lock lever to tighten the guard securely.

⚠ WARNING: Never use your grinder with the guard removed. It has been designed for use only with the guard attached. Attempting to use the grinder with the guard removed will result in loose particles being thrown against the operator and possibly serious personal injury.

ASSEMBLY

MOUNTING THE WHEEL (FIG. 4)

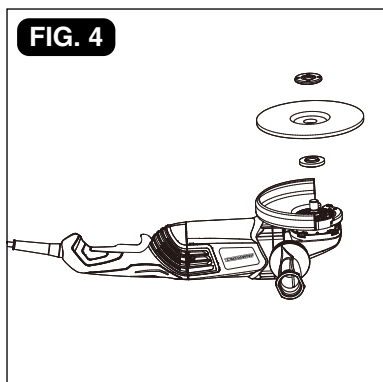


FIG. 4

WARNING: Only use grinding wheels with maximum safe operating speed rated at or above 80m/s. Never use damaged or imbalance grinding wheels. Grinding wheel type 27 is recommended to use on this grinder.

1. Unplug the angle grinder.
2. Make sure that the guard is securely in place.

3. Place the inner flange on the spindle; make sure that the flange is positioned so that the shape of the opening in the flange corresponds with the shape at the base of the spindle.
4. Place the grinding wheel on the spindle. Check the rated speed on the grinding wheel. **DO NOT** use a wheel with a rated speed lower than the speed shown on the grinder nameplate.

NOTICE: The maximum wheel thickness is 1/4", and the center hole dimension must be 7/8".

5. Thread the outer flange on the spindle with the flat side of the flange facing up, making sure that the opening in the wheel is positioned around the raised portion of the outer flange.
6. Press the spindle lock button to prevent movement of the spindle.
7. Keep the spindle lock button pressed in; tighten the threaded outer flange by turning it clockwise with the wrench.
8. Remove the wrench and loosen the spindle lock button.

OPERATION

SWITCH ON AND OFF FIG. 5

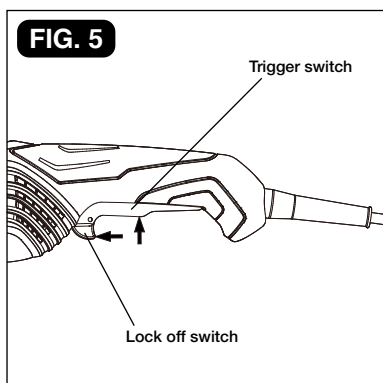


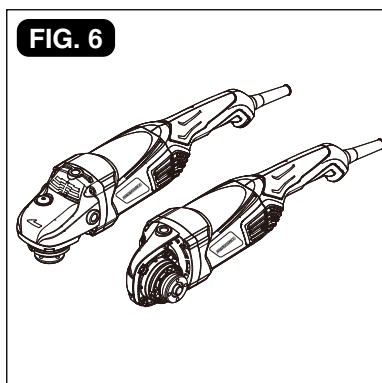
FIG. 5

WARNING: Make sure you can operate the switch easily and turn it off before plugging grinder into a power source.

1. To turn the tool "ON," slide the ON/OFF switch forward, and then apply pressure to the trigger switch.
2. To turn the tool "OFF," release the trigger switch; it will return to the "OFF" position automatically.

OPERATION

ROTATE THE GEAR BOX (FIG. 6)



For applications in which a tool will be dedicated for uses in edge grinding and finishing work, the gear case may be rotated 90° left or right of its original position.

1. Unplug the grinder.
2. Remove the four corner screws connecting gear box and motor housing.
3. Without separating the gear case and motor housing, turn the gear box 90° to the left or right.

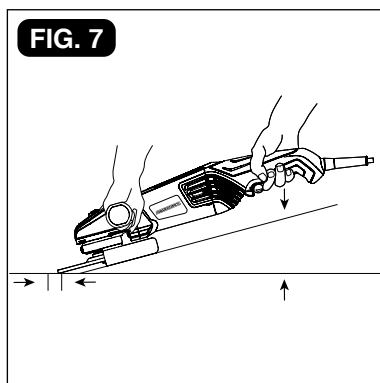
NOTICE: If the distance between gear box and motor housing is more than 1/8", have it repaired by qualified service center.

4. Re-install and tighten the four corner screws.

⚠ WARNING: To reduce the risk of injury, electric shock and damage to the tool, before starting any work, check to determine if utility lines electricity, gas or water supply lines are hidden in the work area.

⚠ WARNING: Firmly grasp the body of the tool and the side handle before starting.

GRINDING APPLICATION (FIG. 7)



1. Secure small workpieces in a vise or clamp them to a workbench.
2. The key to efficient operation is controlling the pressure and surface contact between the grinding wheel and workpiece.
3. Start the angle grinder and let the motor and grinding wheel build up to full speed. Gradually lower the angle grinder until the grinding wheel contacts the workpiece.
4. When grinding, keep a 10-15° angle between the wheel and the workpiece.
5. Move the machine back and forth with moderate pressure to avoid discoloring the workpiece, overheating the workpiece and creating ridges.
6. Remove the tool from the workpiece before turning the tool off. Allow the tool to stop completely before setting it down.
7. Never use a cut-off wheel to grind a work piece.
8. Always hold the tool properly so that sparks and grinding dust fly away from the body.

⚠ WARNING: Sparks are generated when grinding metal. Take care that no combustible material presented in the area of flying sparks.

MAINTENANCE

⚠ WARNING: When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage. For more information, call the toll-free helpline, at 1-866-917-4374.

⚠ WARNING: To ensure safety and reliability, all repairs should be performed by a qualified service technician.

⚠ WARNING: Before cleaning or performing any maintenance, the tool should be unplugged from the power supply.

⚠ WARNING: If the supply cord is damaged, it must be replaced by a specially prepared cord available through the service organization.

GENERAL MAINTENANCE

Using compressed air may be the most effective cleaning method. Always wear safety goggles when cleaning tools with compressed air. Periodic maintenance allows for long life and trouble-free operation. A cleaning, lubrication and maintenance schedule should be maintained.

1. Avoid dropping or otherwise causing impact to the tool and keep it from oil and grease.
2. Inspect the screws periodically. If the screws loosen, tighten them immediately, to avoid serious accident.
3. Clean all parts of the tool; clean dust and debris from vents. Keep the tool clean, dry and free of oil or grease.

4. Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths and mild soap to remove dirt, dust, etc.

LUBRICATION

All of the bearings in this product are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions. Therefore, no further lubrication is required.

CHANGING CARBON BRUSHES

When brushes become worn, the tool will automatically stop, preventing damage to the motor. Brush replacement should be performed by authorized service centers or other qualified service technician.

STORAGE AND HANDLING OF GRINDING WHEELS

When not in use, grinding wheels should be stored carefully in a rack or box, to protect them from chipping or breakage. All grinding wheels must be handled carefully to prevent dropping and bumping.

STANDARD ACCESSORIES

- Side handle 1pc
- Wrench 1pc
- Grinding wheel 1pc

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The motor stops running.	<ol style="list-style-type: none"> 1. The tool is disconnected from the power source. 2. The plugs are not fully connected. 3. The brushes need to be replaced. 	<ol style="list-style-type: none"> 1. Connect the tool to a power source. 2. Make sure all plugs are connected. 3. Replace the brushes on the tool.
The tool is running slowly.	<ol style="list-style-type: none"> 1. The grinding wheel is worn out. 	<ol style="list-style-type: none"> 1. Replace the grinding wheel on the tool.

NOTES

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NOTES

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15A ANGLE GRINDER

WARRANTY

90-DAY MONEY BACK GUARANTEE:

This MASTERFORCE® brand power tool carries our 90-DAY Money Back Guarantee. If you are not completely satisfied with your MASTERFORCE® brand power tool for any reason within ninety (90) days from the date of purchase, return the tool with your original receipt to any MENARDS® retail store, and we will provide you a refund – no questions asked.

3-YEAR LIMITED WARRANTY:

This MASTERFORCE® brand power tool carries our famous No Hassle 3-Year Limited Warranty to the original purchaser. If, during normal use, this MASTERFORCE® power tool breaks or fails due to a defect in material or workmanship within three (3) years from the date of original purchase, simply bring this tool with the original sales receipt back to your nearest MENARDS® retail store. At its discretion, MASTERFORCE® agrees to have the tool or any defective part(s) repaired or replaced with the same or similar MASTERFORCE® product or part free of charge, within the stated warranty period, when returned by the original purchaser with original sales receipt. Notwithstanding the foregoing, this limited warranty does not cover any damage that has resulted from abuse or misuse of the Merchandise. This warranty: (1) excludes expendable parts including but not limited to blades, brushes, belts, bits, light bulbs, and/or batteries; (2) shall be void if this tool is used for commercial and/or rental purposes; and (3) does not cover any losses, injuries to persons/property or costs. This warranty does give you specific legal rights and you may have other rights, which vary from state to state. Be careful, tools are dangerous if improperly used or maintained. Seller's employees are not qualified to advise you on the use of this Merchandise. Any oral representation(s) made will not be binding on seller or its employees. The rights under this limited warranty are to the original purchaser of the Merchandise and may not be transferred to any subsequent owner. This limited warranty is in lieu of all warranties, expressed or implied including warranties or merchantability and fitness for a particular purpose. Seller shall not be liable for any special, incidental, or consequential damages. The sole exclusive remedy against the seller will be for the replacement of any defects as provided herein, as long as the seller is willing or able to replace this product or is willing to refund the purchase price as provided above. For insurance purposes, seller is not allowed to demonstrate any of these power tools for you.

For questions / comments, technical assistance or repair parts – Please Call Toll Free at: 1-866-917-4374. (M-F 8am – 6pm)

**SAVE YOUR RECEIPTS
THIS WARRANTY IS VOID WITHOUT THEM**

MASTER★FORCE®

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